

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number
WO 2005/043551 A1

(51) International Patent Classification⁷: **G12B 21/02**,
21/08, G01B 7/34, 11/30, 5/28

(21) International Application Number:
PCT/IB2004/003599

(22) International Filing Date:
4 November 2004 (04.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03025187.0 4 November 2003 (04.11.2003) EP

(71) Applicant (for all designated States except US): **SWIS-
SPROBE AG** [CH/CH]; c/o Institut für Physik Universität,
Klingelbergstrasse 82, CH-4056 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HUG, Hans J.**

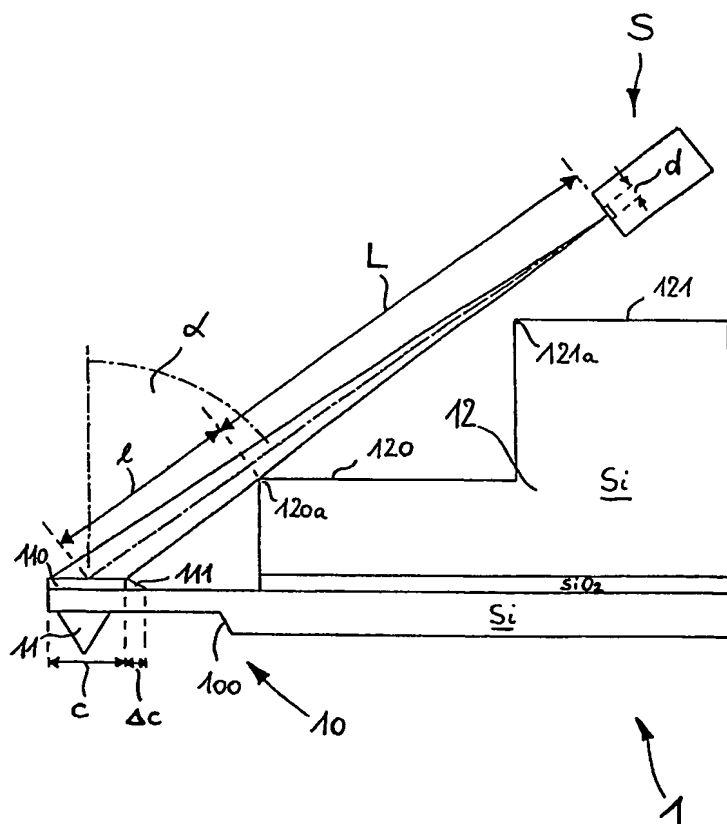
[CH/CH]; Institut für Physik, Klingelbergstrasse 82,
CH-4056 Basel (CH). **HOOGENBOOM, Bart** [NL/CH];
Sempacherstrasse 51, CH-4055 Basel (CH). **MARTIN,
Sascha** [CH/CH]; Blotzheimerstrasse 33, CH-4055 Basel
(CH). **YANG, Jinling** [CN/CN]; Institute of Semiconduc-
tors, Qinghua Dong Lu A 35, PO Box 912, Beijing 100083
(CN).

(74) Agent: **IPRIS GMBH**; Missionsstrasse 24, CH-4055
Basel (CH).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

[Continued on next page]

(54) Title: CANTILEVER ASSEMBLY



(57) Abstract: A cantilever assembly (1) comprises a cantilever (10) having a cantilever tip (11). The cantilever is mounted to a rigid support (12, 120, 121) and is provided on its back side with an area (110) of a high reflectance material having a boundary (111) sloping towards the support (12). The extensions (c, Δc) of the area (110) and of the boundary (111) towards the support fulfil the condition $c/\Delta c \geq 1$ wherein c denotes the extension of the area (110) of the high reflectance material in the direction towards the support (12), and Δc denotes the extension of the sloped boundary (111) of the area (110) of the high reflectance material in the direction towards the support (12).

WO 2005/043551 A1

BEST AVAILABLE COPY



TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

Published:

- *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

BEST AVAILABLE COPY